

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Michael DEMITZ et al.

Confirmation No. 8843

Group Art Unit: 1617

Serial No. : 10/511,122

Examiner: Yu, Gina C

I.A. Filed : October 12, 2004

For : HAIR CARE AGENTS CONTAINING PREGELATINIZED, CROSS-LINKED
STARCH DERIVATIVES

APPEAL BRIEF UNDER 37 C.F.R. § 41.37

Commissioner for Patents
U.S. Patent and Trademark Office
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Sir:

This Appeal is from the Examiner's Final Rejection of claims 18-35 and 37-41 set forth in the Final Office Action mailed from the U.S. Patent and Trademark Office on May 15, 2008 and confirmed in the Advisory Action mailed August 25, 2008.

A Notice of Appeal in response to the May 15, 2008 Final Office Action was filed on September 25, 2008 together with a request for a one-month extension of time.

The requisite fee under 37 C.F.R. § 41.20(b)(2) for filing this Appeal Brief is being paid concurrently herewith.

Inasmuch as this Appeal Brief is being filed within the initial two-month period prescribed by 37 C.F.R. § 41.37(a)(1), set to expire November 25, 2008, it is believed that no extension of time is required. However, the Patent and Trademark Office is hereby authorized to charge any fee which is deemed necessary for maintaining the pendency of this application, including any appeal or extension of time fees that may be deemed necessary, to Deposit Account No. 19-0089.

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I. REAL PARTY IN INTEREST

The real party in interest in this appeal is Beiersdorf AG of Hamburg, Germany. The corresponding assignment was recorded in the U.S. Patent and Trademark Office on June 20, 2005 at REEL 016364, FRAME 0571.

II. RELATED APPEALS AND INTERFERENCES

Appellants, Appellants' representative or the Assignee are not aware of any prior and pending appeals, interferences or judicial proceedings which may be related to, directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

III. STATUS OF CLAIMS

The status of the claims is as follows:

Claims 18-35 and 37-41 are pending in this application.

Claims 1-17 and 36 are cancelled.

Each of claims 18-35 and 37-41 (claim 36 was cancelled in response to the Final Office Action mailed May 25, 2008) is indicated as rejected in the Advisory Action of August 25, 2008.

The rejection of each of claims 18-35 and 37-41 is under appeal. Claims 18-35 and 37-41 involved in the appeal are reproduced in the Claims Appendix attached hereto.

IV. STATUS OF AMENDMENTS

An Amendment in response to the May 15, 2008 Final Office Action was filed on July 15, 2008. According to the August 25, 2008 Advisory Action this Amendment has been entered.

V. SUMMARY OF CLAIMED SUBJECT MATTER

A. Claim 18

Independent claim 18 is drawn to a cosmetic hair care agent that comprises one or more pregelatinized, crosslinked starch derivatives and one or more polymers selected from amphoteric polymers and anionic polymers.

See, e.g., page 3, lines 19-23 of the present specification.

B. Claim 26

Independent claim 26 is drawn to a cosmetic hair care agent that comprises one or more pregelatinized, crosslinked starch derivatives and one or more PVP/VA copolymers.

See, e.g., page 3, lines 19-23 and page 4, lines 9-11 of the present specification.

C. Claim 33

Independent claim 33 is drawn to a cosmetic hair care agent that comprises one or more pregelatinized, crosslinked starch derivatives and one or more cationic polymers selected from cationic cellulose derivatives.

See, e.g., page 3, lines 19-23 and page 4, lines 6-7 of the present specification.

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

The broad issues under consideration are:

1. Whether claims 18-35 and 37-41 are properly rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Muller et al., U.S. Patent No. 6,248,338 (hereafter “MULLER”) in view of Peffly et al., U.S. Patent No. 5,997,886 (hereafter “PEFFLY”) and in particular, whether the disclosures of MULLER and PEFFLY are sufficient to establish a *prima facie* case of obviousness of the subject matter of claims 18-35 and 37-41.
2. Whether claims 26-35 and 37-41 are properly rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over MULLER in view of Flick, Cosmetic Additives, 1991 (hereafter “FLICK”) and in particular, whether the disclosures of MULLER and FLICK are sufficient to establish a *prima facie* case of obviousness of the subject matter of claims 26-35 and 37-41.
3. Whether claims 18-32 are properly rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over MULLER in view of Rollat et al., US 2003/0147834 A1 (hereafter “ROLLAT”) and in particular, whether the disclosures of MULLER and ROLLAT are sufficient to establish a *prima facie* case of obviousness of the subject matter of claims 18-32.

Appellants note that in the May 15, 2008 Final Office Action claims 33-35 were rejected under 35 U.S.C. § 102(a) as allegedly being anticipated by MULLER. However,

in view of the (entered) Amendment filed July 15, 2008 this rejection was withdrawn and claims 33-35 were instead rejected under 35 U.S.C. § 103(a) over MULLER in view of PEFFLY and over MULLER in view of FLICK (see page 2, first section of August 25, 2008 Advisory Action).

VII. ARGUMENTS

A. Citation of Authority

The appropriate starting point for a determination of obviousness is stated in *Graham v. John Deere Co.*, 383 U.S. 1, 17, 148 U.S.P.Q. 459, 466 (1966):

Under § 103, the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained and the level of ordinary skill in the pertinent art resolved. Against this background, the obviousness or nonobviousness of the subject matter is determined.

The test of obviousness *vel non* is statutory and requires a comparison of the claimed subject matter as a whole with the prior art to which the subject matter pertains. *In re Brouwer*, 77 F.3d, 422, 37 U.S.P.Q. 2d 1663 (Fed. Cir. 1996); *In re Ochiai*, 71 F.3d 1565, 37 U.S.P.Q. 2d 1127 (Fed. Cir. 1995).

Often, it will be necessary to look to interrelated teachings of multiple patents; the effects of demands known to the design community or present in the marketplace; and the background knowledge possessed by a person having ordinary skill in the art to determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue. This analysis should be made explicit. There must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness. *KSR Int'l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1740-1741. “A

patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art. Although common sense directs one to look with care at a patent application that claims as innovation the combination of two known devices according to their established functions, it can be important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does.” *Id.* at 1741.

“If the Examiner fails to establish a *prima facie* case, the rejection is improper and will be overturned.” *In re Rijckaert*, 9 F.3d, 1532, 28 U.S.P.Q.2d, 1956 (Fed. Cir. 1993), citing *In re Fine*, 837 F.2d 1071, 1074, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988).

B. Claims 18-35 and 37-41 Are Not Properly Rejected Under 35 U.S.C. 103(a) As Being Unpatentable Over MULLER in View of PEFFLY

1. Summary of Rejection

The rejection concedes that MULLER fails to disclose the specific cationic polymers recited in claim 36 but essentially alleges that using this type and other types of polymers in the compositions of MULLER would have been obvious to one of ordinary skill in the art in view of PEFFLY. Further, the rejection essentially alleges that PEFFLY teaches adding hair styling or hair shine agents to hair styling products in combination with hair conditioning agents and that, examples of hair styling and hair shine agents mentioned in PEFFLY include quaternized hydroxyethylcellulose ethers, nonionic polymers, PVP/VA copolymers and anionic acrylate copolymers.

2. Response

a. There is no motivation to combine MULLER and PEFFLY

Appellants submit there is no motivation for one of ordinary skill in the art to combine the teachings of MULLER and PEFFLY. In this regard, it is pointed out that MULLER is directed to a composition for cleaning or caring for the skin, teeth or hair or for cleaning smooth surfaces, which composition has an aqueous phase containing a pregelatinized, crosslinked starch selected from a C₂-C₅ hydroxyalkyl starch and a C₂-C₁₈ acyl starch. The starch acts 1) as a stability improver, 2) as a viscosity regulator, 3) as a (co)emulsifier, 4) as a skin feel improving agent and 5) as an agent for improving hairdressing characteristics. See, e.g., abstract of MULLER.

Accordingly, MULLER is not focused on hair care compositions but rather is directed generally to compositions for cleaning or caring for the skin, teeth or hair or for cleaning smooth surfaces. For example, in addition to hair rinses and shampoos the Examples of MULLER describe products as diverse as foam bath compositions, O/W cosmetic creams, alcohol-containing lotions with a deodorant action, alcohol containing creams with a light protection action, O/W body lotions, shaving foams, W/O body creams, dishwashing compositions, a dental cream, an emulsifier-free O/W body lotion, and a thickened hair bleaching system. Virtually the only thing these different products have in common is that they all contain the pregelatinized, crosslinked starch selected from a C₂-C₅ hydroxyalkyl starch and a C₂-C₁₈ acyl starch which is described in detail by MULLER and which clearly represents the core of the compositions described therein.

PEFFLY, on the other hand, is directed to a specific type of composition, i.e., a relatively low VOC (Volatile Organic Compound) hair styling composition which

provides good style retention without unacceptable stickiness or stiffness. The composition comprises a hair styling polymer and a carrier comprising two types of solvents and is characterized by satisfying a specific relationship between a Stiffness Value and a Curl Retention Index. See, e.g., abstract of PEFFLY.

It is not seen that one of ordinary skill in the art who wants to modify one specific example of the many different types of compositions which are described by MULLER, i.e., hair care compositions (comprising a pregelatinized, crosslinked starch selected from a C₂-C₅ hydroxyalkyl starch and a C₂-C₁₈ acyl starch), has an apparent reason to consult a document (PEFFLY) which relates to compositions which have virtually nothing in common with the hair care (or any other) compositions of MULLER, i.e., hair styling compositions which comprise a hair styling polymer and a particular carrier and show a specific relationship between a Stiffness Value and a Curl Retention Index. For this reason alone, the Examiner has failed to establish a *prima facie* case of obviousness of the subject matter of any of the present claims over MULLER in view of PEFFLY.

b. There is no reason to pick and choose specific hair styling polymers from the laundry list set forth in PEFFLY

Even if one were to assume, *arguendo*, that one of ordinary skill in the art would be motivated to combine specific parts of the teaching of MULLER (i.e., those relating to hair care compositions) with the teaching of PEFFLY, it is not seen what would motivate one of ordinary skill in the art to pick and choose specific examples of one type of hair-styling polymers disclosed in PEFFLY, i.e., non-silicone-containing hair styling polymers, for incorporation into the hair care compositions of MULLER. In this regard, it

is pointed out that PEFFLY discloses hundreds, if not thousands, of different examples of hair styling polymers in the passage from col. 3, line 54 to col. 11, line 13 of this document and it is not seen that any of the polymers recited in the rejected claims is particularly pointed out by PEFFLY.

c. The required properties of the hair styling polymers of PEFFLY would not be compatible with the properties of the hair care compositions mentioned by MULLER

The only hair care compositions which are mentioned in MULLER are hair rinse compositions (Examples 1-3) and shampoos (Examples 4-6). Further, according to col. 3, lines 25-28 of PEFFLY the hair styling polymers described therein “possess adhesive properties such that they are capable of shaping or styling the hair, and should be removable by shampooing or rinsing the hair.” In other words, it would apparently not make sense to incorporate the hair styling polymers of PEFFLY into the exemplified hair care compositions of MULLER because they would not serve any useful purpose in these compositions (they would not be able to adhere to the hair but would be washed off).

Appellants note that in this regard the Examiner takes the position that the hair care compositions of MULLER are not limited to hair rinses and shampoos. However, the fact remains that the only (and apparently preferred) hair care compositions specifically mentioned and described by MULLER would clearly not benefit from incorporating therein any of the hair styling polymers of PEFFLY.

Additionally, according to col. 5, lines 23-28 and 61-65 of MULLER the starch derivatives disclosed therein are used as agents for improving hairdressing characteristics and can be drawn onto the hair and make the latter more easily combable and sleek. One

of ordinary skill in the art will recognize that these advantageous properties of the starch derivatives mentioned by MULLER would be of virtually no value if the hair care compositions containing these derivatives were used for hair styling and hair shaping (i.e., the very purpose the hair styling polymers of PEFFLY are intended for). For example, there is no need for hair that is supposed to keep its shape to be easily combable.

d. There is no expectation of success associated with combining the starch derivatives of MULLER and the hair styling polymers of PEFFLY

Even if the facts set forth above were disregarded, there is yet another reason why there would be a disincentive rather than a motivation for one of ordinary skill in the art to add any of the hair styling polymers of PEFFLY to the hair care compositions of MULLER. In particular, the compositions of MULLER contain a very narrowly defined and specialized polymer, i.e., a pregelatinized, crosslinked starch selected from a C₂-C₅ hydroxyalkyl starch and a C₂-C₁₈ acyl starch. One of ordinary skill in the art would not be able to predict at all whether other polymers of a completely different type would be compatible with the specialty polymers of MULLER and in particular, would not interfere with the advantageous properties of the starch derivatives of MULLER, i.e., as 1) stability improver, 2) viscosity regulator, 3) (co)emulsifier, 4) skin feel improving agent and 5) agent for improving hairdressing characteristics. This uncertainty is aggravated by the fact that MULLER does not specifically mention that it is possible to use any additional (synthetic) polymer in combination with the starch derivatives disclosed therein, let alone that any advantages might be obtainable thereby. In column 5,

lines 20-23 MULLER merely mentions that the starch derivatives described therein “can be used in conjunction with other starches, such as native starches, modified starches, and the like starches”. This is even more noteworthy in view of the fact that the compositions of MULLER have many different applications (see, e.g., abstract and Examples of MULLER) and that for at least some of these applications the use of more than one polymer would appear to be quite normal.

An indication that one has to be careful with respect to incompatibility issues is given in col. 7, lines 24-28 of MULLER, where it is stated that the specific polymer disclosed therein “shows the benefit of being compatible with cationic compounds, i.e., it remains dispersed in the presence of the cationic compound and maintains its viscosity”. The fact that MULLER highlights one type of compounds, i.e., cationic compounds, which do not adversely affect one of the favorable properties of the starch derivatives disclosed therein may be understood as an implicit warning that one has to be careful with the selection of compounds which are to be combined with the starch derivatives of MULLER. In other words, one of ordinary skill in the art would consider the fact that other compounds such as, e.g., neutral, anionic and amphoteric compounds (and in particular, polymers) are not mentioned in this passage to be an indication that the latter compounds (polymers) are likely to create (incompatibility or other) problems.

PEFFLY also contains a warning to the effect that the hair styling polymers disclosed therein are not combinable with each and every other compound. Specifically, in col. 3, lines 44-48 PEFFLY points out that the hair styling polymers disclosed therein and the other components “are selected such that the total composition will be compatible

such that a substantially homogeneous solution or dispersion (preferably a microdispersion) is formed."

In view of the foregoing facts, there would be no expectation of success associated with the combination of the hair care compositions of MULLER and the hair styling polymers of PEFFLY.

Appellants submit that for at least all of the foregoing reasons, the Examiner has failed to establish a *prima facie* case of obviousness of the subject matter of claims 18-35 and 37-41 over MULLER in view of PEFFLY.

e. Claims 33-35 and 37-41

Independent claim 33 is drawn to a cosmetic hair care agent which comprises one or more pregelatinized, crosslinked starch derivatives and one or more cationic polymers selected from cationic cellulose derivatives.

In this regard, Appellants point out that in column 8, lines 33-37 of MULLER it is stated that “[p]olysaccharide thickening agents commonly used in hair treatment compositions, such as hydroxyethyl cellulose and xanthan gum, are typically difficult to disperse as they form lumps and fish eyes.” This statement clearly teaches away from the subject matter of claim 33 and the claims dependent therefrom (see in particular claim 37 which specifically recites a derivative of hydroxyethylcellulose).

This is yet another reason (i.e., in addition to those set forth above) why the Examiner has failed to establish a *prima facie* case of obviousness of the subject matter of claims 33-41 over MULLER in view of PEFFLY.

C. Claims 26-35 and 37-41 Are Not Properly Rejected Under 35 U.S.C. 103(a) As Being Unpatentable Over MULLER in View of FLICK

1. Summary of Rejection

The rejection alleges that MULLER teaches that the starch described therein acts as a stability improver, a viscosity regulator, a (co)emulsifier, a skin feel improving agent, and an agent for improving hairdressing characteristics and that MULLER also teaches to formulate the composition as a high viscosity alcoholic gel, and optionally to add additional thickening agents. The rejection concedes that MULLER does not specifically teach adding cationic cellulose or vinylpyrrolidone/vinyl acetate copolymer. In this regard, the rejection relies on FLICK and alleges that FLICK “teaches that cationic quaternized celluloses are useful in hair care formulations and enhances wet and dry combing, increases body and reduces flyaway” and “also teaches that vinylpyrrolidone/vinyl acetate copolymers are film-formers used in hairsprays, gels, mousses, lotions, hair thickeners, etc.” Based on these allegations the rejection asserts that the subject matter of independent claims 26 and 36 would have been obvious to one of ordinary skill in the art.

2. Claims 26-32

a. There is no motivation to combine other polymers with the starch derivatives of MULLER

As pointed out in section VII.B.d. above, MULLER fails to set forth any types of polymers which are different from (other) starches and may be combined with the specific starch derivatives described therein. In view thereof and also in view of the at least implicit warning in col. 7, lines 24-28 of MULLER that the presence of other compounds may interfere with the various advantageous properties of the starch

derivatives described therein, there is no motivation but rather a disincentive for one of ordinary skill in the art to add polymers such as a vinylpyrrolidone/vinyl acetate copolymer to the compositions of MULLER.

b. The PVP/VA polymers of FLICK appear to be incompatible with the purpose of the hair care compositions of MULLER

In addition to the fact that MULLER conveys the impression that the employment of other polymers in combination with the starch derivatives described therein may be problematic (or at least is not particularly desirable), it appears that the PVP/VA copolymers described by FLICK are not even compatible with the purpose of the hair care compositions of MULLER. Specifically, according to FLICK the PVP/VA copolymers described therein form hard and glossy films. It is not seen that the presence of a substance which forms hard and glossy films is desirable in a composition which is intended for the care of hair. Accordingly, the disclosure of FLICK is a disincentive rather than a motivation to incorporate PVP/VA copolymers into the hair care compositions of MULLER.

In this regard it also is pointed out that the only hair care compositions which are specifically mentioned (and exemplified) in MULLER are hair rinse compositions and shampoos. On the other hand, FLICK also sets forth that the PVP/VA copolymers disclosed therein form water-soluble films. Accordingly, it is apparent that employing the water-soluble PVP/VA copolymers in the exemplified hair care compositions of MULLER (which are intended to be used in combination with water) would not make any sense at all (they would apparently be washed off together with the components of the hair rinse or shampoo).

Appellants submit that for at least all of the foregoing reasons the Examiner has failed to establish a *prima facie* case of obviousness of the subject matter of claims 26-32 over MULLER in view of FLICK.

3. Claims 33-35 and 37-41

a. There is no motivation to combine other polymers with the starch derivatives of MULLER

As pointed out in section VII.B.d. above, MULLER fails to set forth any types of polymers which are different from starches and may be combined with the specific starch derivatives described therein. In view thereof and also in view of the at least implicit warning in col. 7, lines 24-28 of MULLER that the presence of other compounds may interfere with the various advantageous properties of the starch derivatives described therein, there is no motivation but rather a disincentive for one of ordinary skill in the art to add polymers such as the quaternized celluloses of FLICK to the compositions of MULLER.

b. The quaternized celluloses of FLICK do not appear to add any advantageous properties to the compositions of MULLER

In addition to the fact that MULLER conveys the impression that the employment of other polymers in combination with the starch derivatives described therein may be problematic (or at least is not particularly desirable), it appears that the quaternized celluloses described by FLICK would not contribute any additional advantage to the compositions of MULLER, let alone an additional advantage which would make it seem

worthwhile to risk any incompatibility and/or other problems potentially associated with the employment of a quaternized cellulose.

In particular, MULLER discloses that the pregelatinized, crosslinked starch derivatives taught therein improve hairdressing characteristics, have substantive characteristics, i.e., can be drawn in human hair and make the latter more easily combable and sleek, and have good dispersibility in wet hair and good wet combability (see, e.g., abstract, col. 5, lines 61-65, col. 11, lines 25-28 and col. 12, lines 8-12).

Accordingly, the pregelatinized, crosslinked starch derivatives taught by MULLER appear to impart the same properties to the hair care compositions of MULLER as the quaternized celluloses mentioned in FLICK. In particular, according to FLICK, the fatty group of the quaternized celluloses described therein "enhances wet and dry combing, increases body and reduces flyaway". This is an additional reason why one of ordinary skill in the art would have no apparent reason to employ the latter polymers in the hair care compositions of MULLER.

c. MULLER discourages the employment of the quaternized celluloses of FLICK

Appellants further note that MULLER discourages the employment of polysaccharide derivatives such as the quaternized celluloses of FLICK in the compositions of MULLER. Specifically, MULLER states in column 8, lines 33-37 that "[p]olysaccharide thickening agents commonly used in hair treatment compositions, such as hydroxyethyl cellulose and xanthan gum, are typically difficult to disperse as they form lumps and fish eyes." This statement clearly teaches away from the using any

polysaccharide, including the quaternized celluloses of FLICK, in the compositions of MULLER.

Appellants submit that for at least all of the foregoing reasons the Examiner has failed to establish a *prima facie* case of obviousness over MULLER in view of FLICK also with respect to claims 33-35 and 37-41.

D. Claims 18-32 Are Not Properly Rejected Under 35 U.S.C. 103(a) As Being Unpatentable Over MULLER in View of ROLLAT

1. Summary of Rejection

The rejection concedes that MULLER fails to teach anionic or amphoteric copolymers. In this regard, the rejection relies on ROLLAT, asserting that this document teaches that anionic acrylate copolymers and amphoteric copolymers are hair styling copolymers suitable for styling conditioner, spray, conditioning spray, lotion, gel, tonic etc., and also teaches adding 0.01-3 % by weight of cationic conditioning polymers to the styling compositions. The rejection further alleges that in view thereof, it would have been obvious to one of ordinary skill in the art to modify the teachings of MULLER by incorporating anionic or amphoteric hair styling copolymers into the compositions taught therein.

2. Response

a. There is no motivation to combine MULLER and ROLLAT

Appellants submit that there is no motivation for one of ordinary skill in the art to combine the teachings of MULLER and ROLLAT. In this regard, it is pointed out that MULLER is directed to a composition for cleaning or caring for the skin, teeth or hair or for cleaning smooth surfaces, which composition has an aqueous phase containing a

pregelatinized, crosslinked starch selected from a C₂-C₅ hydroxyalkyl starch and a C₂-C₁₈ acyl starch. The starch acts 1) as a stability improver, 2) as a viscosity regulator, 3) as a (co)emulsifier, 4) as a skin feel improving agent and 5) as an agent for improving hairdressing characteristics. See, e.g., abstract of MULLER.

Accordingly, MULLER is not focused on hair care compositions but rather is directed generally to compositions for cleaning or caring for the skin, teeth or hair or for cleaning smooth surfaces. For example, in addition to hair rinses and shampoos the Examples of MULLER describe products as diverse as foam bath compositions, O/W cosmetic creams, alcohol-containing lotions with a deodorant action, alcohol containing creams with a light protection action, O/W body lotions, shaving foams, W/O body creams, dishwashing compositions, a dental cream, an emulsifier-free O/W body lotion, and a thickened hair bleaching system. Virtually the only thing these different products have in common is that they all contain the pregelatinized, crosslinked starch selected from a C₂-C₅ hydroxyalkyl starch and a C₂-C₁₈ acyl starch which is described in detail by MULLER and which clearly represents the core of the compositions described therein.

ROLLAT, on the other hand, is directed to a reshaping hair styling composition comprising, optionally in a cosmetically acceptable vehicle, at least one (meth)acrylic copolymer, wherein the at least one (meth)acrylic copolymer comprises (a) units derived from at least one monomer chosen from butyl (meth)acrylate monomers, (b) units derived from at least one monomer chosen from hydroxy alkyl (meth)acrylate monomers, and (c) optional units derived from at least one co-polymerizable monomer other than said (a) and (b) monomers, which composition provides a reshaping effect. See e.g., abstract of ROLLAT.

It is not seen that one of ordinary skill in the art who wants to modify one specific example of the many types of compositions which are described by MULLER, i.e., hair care compositions (comprising a pregelatinized, crosslinked starch selected from a C₂ -C₅ hydroxyalkyl starch and a C₂-C₁₈ acyl starch), has an apparent reason to consult ROLLAT, a document which relates to compositions which have virtually nothing in common with the hair care (or any other) compositions of MULLER, i.e., hair styling compositions comprising a specific (meth)acrylic copolymer. For this reason alone, the Examiner has failed to establish a *prima facie* case of obviousness of the subject matter of any of the rejected claims over MULLER in view of ROLLAT.

b. The hair styling polymers of ROLLAT are not identical with the anionic and amphoteric polymers mentioned in ROLLAT and relied on by the Examiner

It further is pointed out that the hair styling copolymers of ROLLAT, i.e., the (meth)acrylic copolymers set forth in, e.g., the abstract of ROLLAT are not identical with the anionic or amphoteric polymers which are mentioned in the passage from paragraph [0051] to paragraph [0190] of ROLLAT, which latter polymers are relied on by the Examiner at the top of page 6 of the May 15, 2005 Office Action. This becomes clear from, e.g., paragraph [0050] of ROLLAT which states (emphases added):

The composition according to the invention may further comprise at least one constituent known in the cosmetic arts that does not substantially interfere with the reshaping properties of the at least one (meth)acrylic copolymer. Such constituents may be chosen from, but are not limited to: reducing agents (such as thiols); silanes (such as aminopropyl triethoxy silane); fatty substances; thickeners; plasticizers; anti-foaming agents; hydrating agents; fillers; sunscreens (such as UV filters); active haircare agents; perfumes; preservatives; cationic, anionic, nonionic, and amphoteric (such as zwitterionic) surfactants; cationic, anionic, nonionic, and amphoteric (such as zwitterionic) polymers other than polymers of the invention; polyols; proteins; provitamins; vitamins; dyes; tints; bleaches; and pH adjusting

agents. The compositions may also contain a conditioning agent such as, for example, such as silicones, fatty esters, fatty alcohols, long chain hydrocarbons, emollients, lubricants, polymers, surfactants, lanolin compounds, ceramides, proteins, protein hydrolysates, and other protein derivatives. As used herein, the term "conditioning agent" means any agent whose function is to improve the cosmetic properties of the hair, for example, the softness, ease of disentangling, feel, and lack of static electricity. In one embodiment, the at least one conditioning agent is chosen from cationic surfactants, cationic polymers, and silicones.

Accordingly, the anionic and amphoteric polymers mentioned by ROLLAT are merely optional components of the hair styling compositions disclosed therein. Further, particularly from the disclosure in paragraphs [0029]-[0031] of ROLLAT it is apparent that the essential components of the compositions of ROLLAT, i.e., the (meth)acrylic copolymers described therein are (at least predominantly) non-ionic polymers, i.e., polymers whose essential units are derived from butyl(meth)acrylate monomers and hydroxyalkyl (meth)acrylate monomers. For example, the only non-prophetic Example of ROLLAT (Example 1) describes the preparation of a copolymer of 2-ethylhexyl acrylate, n-butyl acrylate and 2-hydroxyethyl methacrylate. This copolymer is employed in all of the formulation examples (Formulations A-E) of ROLLAT (see pages 18 and 19 thereof).

c. There is no expectation of success associated with combining the starch derivatives of MULLER and the hair styling polymers of ROLLAT

Even if the facts set forth above were disregarded, there is yet another reason why there would be a disincentive rather than a motivation for one of ordinary skill in the art to add any of the hair styling polymers (or optional polymers) of ROLLAT to the hair care compositions of MULLER. In particular, the compositions of MULLER contain a very narrowly defined and specialized polymer, i.e., a pregelatinized, crosslinked starch

selected from a C₂-C₅ hydroxyalkyl starch and a C₂-C₁₈ acyl starch. One of ordinary skill in the art would not be able to predict at all whether other polymers of a completely different type would be compatible with the specialty polymers of MULLER and in particular, would not interfere with the reported properties of the polymer of MULLER, i.e., as 1) stability improver, 2) viscosity regulator, 3) (co)emulsifier, 4) skin feel improving agent and 5) agent for improving hairdressing characteristics. This uncertainty is aggravated by the fact that MULLER does not specifically mention that it is possible to use any additional (synthetic) polymer in combination with the starch derivatives disclosed therein, let alone that any advantages might be obtainable thereby. In column 5, lines 20-23 MULLER merely mentions that the starch derivatives described therein "can be used in conjunction with other starches, such as native starches, modified starches, and the like starches". This is even more noteworthy in view of the fact that the compositions of MULLER have many different applications (see, e.g., abstract and Examples of MULLER) and that for at least some of these applications the use of more than one polymer would appear to be quite normal.

An indication that one has to be careful with respect to incompatibility issues is given in col. 7, lines 24-28 of MULLER, where it is stated that the specific polymer disclosed therein "shows the benefit of being compatible with cationic compounds, i.e., it remains dispersed in the presence of the cationic compound and maintains its viscosity". The fact that MULLER highlights one type of compounds, i.e., cationic compounds, which do not adversely affect one of the favorable properties of the starch derivatives disclosed therein would may be understood as an implicit warning that one has to be careful with the selection of compounds which are to be combined with the starch

derivatives of MULLER. In other words, one of ordinary skill in the art would consider the fact that other compounds such as, e.g., neutral, anionic and amphoteric compounds (and in particular, polymers) are not mentioned in this passage to be an indication that the latter compounds (polymers) are likely to create (incompatibility or other) problems.

In addition, also ROLLAT contains an at least implicit warning to the effect that the (meth)acrylic hair styling polymers disclosed therein are not combinable with each and every other compound. Specifically, at the beginning of the above-recited paragraph [0050] ROLLAT notes that the optional components which may be present in the hair styling compositions disclosed therein should “not substantially interfere with the reshaping properties of the at least one (meth)acrylic copolymer”.

In view of the foregoing facts, there is no expectation of success associated with the combination of the hair care compositions of MULLER and the hair styling polymers (and optionally employed polymers) of ROLLAT.

d. Claim 21

Dependent claim 21 recites that the one or more polymers of the cosmetic hair care agent of claim 18 comprise one or more amphoteric amide/acrylate/methacrylate copolymers.

It is not seen that ROLLAT teaches or suggests using an amphoteric amide/acrylate/methacrylate copolymer as a hair styling polymer. This is yet another reason (i.e., in addition to the reasons set forth above) why MULLER in view of ROLLAT is unable to render obvious the subject matter of claim 21.

e. **Claims 26-32**

Independent claim 26 is drawn to a cosmetic hair care agent that comprises one or more pregelatinized, crosslinked starch derivatives and one or more PVP/VA copolymers.

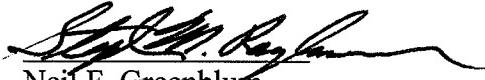
It is not seen that ROLLAT teaches or suggests using a PVP/VA copolymer instead of the (meth)acrylic copolymers taught therein as hair styling polymer for the compositions described therein. This is yet another reason (i.e., in addition to the reasons set forth above) why MULLER in view of ROLLAT is unable to render obvious the subject matter of independent claim 26 and the claims dependent therefrom.

Appellants submit that for at least all of the foregoing reasons, the Examiner has failed to establish a *prima facie* case of obviousness of the subject matter of claims 18-32 over MULLER in view of ROLLAT.

VIII. CONCLUSION

Appellants respectfully submit that for at least all of the foregoing reasons, the Examiner has failed to establish a *prima facie* case of obviousness of any of claims 18-35 and 37-41 over MULLER and PEFFLY, FLICK or ROLLAT, which is a prerequisite for maintaining a rejection under 35 U.S.C. § 103. The Board is, therefore, respectfully requested to reverse the Final Rejection, and to allow the application to issue in its present form.

Respectfully submitted,
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CLAIMS APPENDIX

18. A cosmetic hair care agent, wherein the hair care agent comprises one or more pregelatinized, crosslinked starch derivatives and one or more polymers selected from amphoteric polymers and anionic polymers.
19. The hair care agent of claim 18, wherein the one or more pregelatinized, crosslinked starch derivatives comprise a hydroxypropyl distarch phosphate.
20. The hair care agent of claim 18, wherein the one or more polymers comprise one or more anionic acrylate copolymers.
21. The hair care agent of claim 18, wherein the one or more polymers comprise one or more amphoteric amide/acrylate/methacrylate copolymers.
22. The hair care agent of claim 18, wherein the hair care agent further comprises one or more surfactants selected from fatty alcohols having from 6 to 22 carbon atoms and alkylamidopropyl betaines.
23. The hair care agent of claim 18, wherein the hair care agent further comprises one or more surfactants selected from sodium myristyl ether sulfate, sodium lauryl ether sulfate, cocoamidopropylbetaine, disodium PEG-5 lauryl citrate sulfosuccinate, and sodium cocoamphoacetate.

24. The hair care agent of claim 18, wherein a total amount of polymers is from 0.1 % to 3 % by weight, based on the total weight of the hair care agent.
25. The hair care agent of claim 18, wherein a total amount of polymers is from 0.2 % to 1.5 % by weight, based on the total weight of the hair care agent.
26. A cosmetic hair care agent, wherein the hair care agent comprises one or more pregelatinized, crosslinked starch derivatives and one or more PVP/VA copolymers.
27. The hair care agent of claim 26, wherein the one or more pregelatinized, crosslinked starch derivatives comprise a hydroxypropylated starch phosphate ester.
28. The hair care agent of claim 26, wherein the one or more pregelatinized, crosslinked starch derivatives comprise a hydroxypropyl distarch phosphate.
29. The hair care agent of claim 26, wherein the hair care agent further comprises one or more surfactants selected from fatty alcohols having from 6 to 22 carbon atoms and alkylamidopropyl betaines.
30. The hair care agent of claim 26, wherein the hair care agent further comprises one or more surfactants selected from sodium myristyl ether sulfate, sodium lauryl ether sulfate, cocoamidopropylbetaine, disodium PEG-5 lauryl citrate sulfosuccinate, and sodium cocoamphoacetate.

31. The hair care agent of claim 26, wherein a total amount of polymers is from 0.1 % to 3 % by weight, based on the total weight of the hair care agent.

32. The hair care agent of claim 26, wherein a total amount of polymers is from 0.2 % to 1.5 % by weight, based on the total weight of the hair care agent.

33. A cosmetic hair care agent, wherein the hair care agent comprises one or more pregelatinized, crosslinked starch derivatives and one or more cationic polymers selected from cationic cellulose derivatives.

34. The hair care agent of claim 33, wherein the one or more pregelatinized, crosslinked starch derivatives comprise a hydroxypropylated starch phosphate ester.

35. The hair care agent of claim 33, wherein the one or more pregelatinized, crosslinked starch derivatives comprise a hydroxypropyl distarch phosphate.

37. The hair care agent of claim 33, wherein the one or more cationic cellulose derivatives comprise one or more polymeric quaternized ammonium salts of hydroxyethylcellulose which has been modified with a trimethylammonium-substituted epoxide.

38. The hair care agent of claim 33, wherein the hair care agent further comprises one or more surfactants selected from fatty alcohols having from 6 to 22 carbon atoms and alkylamidopropyl betaines.

39. The hair care agent of claim 33, wherein the hair care agent further comprises one or more surfactants selected from sodium myristyl ether sulfate, sodium lauryl ether sulfate, cocoamidopropylbetaine, disodium PEG-5 lauryl citrate sulfosuccinate, and sodium cocoamphoacetate.

40. The hair care agent of claim 33, wherein a total amount of polymers is from 0.1 % to 3 % by weight, based on the total weight of the hair care agent.

41. The hair care agent of claim 33, wherein a total amount of polymers is from 0.2 % to 1.5 % by weight, based on the total weight of the hair care agent.

EVIDENCE APPENDIX

None.

RELATED PROCEEDINGS APPENDIX

None.